



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,184	04/23/2001	John Anthony Lucas	8257.15USWO	6598

23552 7590 10/19/2004

MERCHANT & GOULD PC  
P.O. BOX 2903  
MINNEAPOLIS, MN 55402-0903

EXAMINER
----------

HERTZOG, ARDITH E

ART UNIT	PAPER NUMBER
----------	--------------

1754

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/786,184	Applicant(s) LUCAS ET AL.	
	Examiner Ardith E. Hertzog	Art Unit 1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2004.
- 2a) ☐ This action is **FINAL**.      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 19-27 and 29-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18, 28 and 39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-39 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/17 &amp; 6/4, 2001</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Restriction/Election*

1. This action is in response to applicant's "Response to Restriction Requirement" filed September 13, 2004. Applicant's election of the subject matter of **Group I**, claims 1-18, 28 and 39, "**with** traverse" (emphasis added), is acknowledged. **However**, because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election **without** traverse (see MPEP § 818.03(a)). Thus, claims 19-27 and 29-38 are withdrawn from further consideration, pursuant to 37 CFR § 1.142(b), as being drawn to a nonelected invention (with, again, the election considered to have been made **without** traverse in said response).

### *Priority/Response to Amendment*

2. This application has been filed under 35 U.S.C. § 371 based upon International Application PCT/AU99/00785 filed September 16, 1999, and published (in English) as WO 00/18524 on April 6, 2000. In accordance with MPEP § 1893.03(e), acknowledgement is made of the corresponding International Search Report (Form PCT/IPEA/210) and International Preliminary Examination Report (Form PCT/IPEA/409). Acknowledgment is also made of applicant's claim for priority under 35 U.S.C. § 119(a)-(d); the certified copy has been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). Applicant's preliminary amendment filed April 23, 2001 has been entered, and claims 1-39, per said

amendment, are now pending, with, again, claims 19-27 and 29-38 withdrawn from further consideration, pursuant to 37 CFR § 1.142(b), as being drawn to a nonelected invention.

### ***Information Disclosure Statements***

3. Receipt is hereby acknowledged of the information disclosure statements filed May 17, 2001 and June 4, 2001. As the submissions are in compliance with the provisions of 37 CFR § 1.97, they have been considered, in accordance with the enclosed PTO-1449 forms.

### ***Abstract***

4. Applicant is reminded of the proper language and format for an abstract of the disclosure:

The abstract should be in narrative form... **within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length** since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details. (MPEP § 608.01(b), emphasis added)

5. The abstract of the disclosure is objected to, because, per the bolded citation above, it is approximately 195 words long. Appropriate correction is required.

### ***Drawings***

6. It is initially noted that:

The drawings for the national stage application must comply with PCT Rule 11. The copy of the drawings provided by the International Bureau has already been checked and should be in compliance with PCT Rule 11. Accordingly, the drawings provided by the International Bureau... should be acceptable. The USPTO may not impose requirements beyond those

imposed by the Patent Cooperation Treaty (e.g., PCT Rule11). **However, the examiner does indeed have the authority to require new or more acceptable drawings if the drawings were published without meeting all requirements under the PCT for drawings.** (MPEP § 1893.03(f), emphasis added)

7. The drawings are objected to, per the bolded citation above, as failing to comply with PCT Rule 11.13(l), (m):

(l) Reference signs not mentioned in the description shall not appear in the drawings, and vice versa.

(m) The same features, when denoted by reference signs, shall, throughout the international application, be denoted by the same signs.

Specifically, reference sign "29" (discussed in the sentence bridging pp. 19-20) and reference sign "36" (discussed at page 11, lines 18-21) appear to be missing from Figure 1, while reference sign "55" has been used to designate **both** "afterburner 55" (see p. 11, line 24) **and** "bypass duct 55" (see p. 12, line 11) in Figure 1.

8. **Corrected drawing sheets, with amendment to the specification as/if necessary, are required in reply to this Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended". If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the**

**renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR § 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. Any objection to the drawings will not be held in abeyance.**

***Minor Informalities***

9. The disclosure is objected to, because of the following minor informalities:
  - a. At page 5, line 12, evidently "absorption" should be replaced with "desorption", for consistency with the rest of this portion of the specification (note related 35 U.S.C. § 112, second paragraph, rejection in paragraph 15. below).
  - b. At page 7, line 10, evidently "means" should be inserted after "said second furnace", for consistency with the rest of this portion of the specification (note related 35 U.S.C. § 112, second paragraph, rejection in paragraph 15. below).
  - c. At page 11, line 5, evidently "21a" should be "20a", for consistency with Figure 1.
  - d. "While there is no set statutory form for claims, the present Office practice is to insist that each claim must be the object of a sentence starting with 'I (or we) claim,' 'The invention claimed is' (or the equivalent)" (see MPEP § 608.01(m)).
  - e. In claim 3, it is suggested that "higher contaminated soil" be revised as "soil with high hydrocarbon contamination levels" (basis p. 10, line 25, of the specification), for clarity; that is, it is respectfully submitted that the terminology

“**higher** contaminated soil” (emphasis added) is not entirely clear.

- f. In claim 15, the last line, evidently “exchangers” should be “exchanges”, for consistency with the rest of the claim (i.e., which recites the broader term, “heat exchange means”); see **also** page 6, lines 4-7, of the specification.

Appropriate correction of all the above is required.

### ***Potential Double Patenting***

10. Applicant is advised that should claim 28 be found allowable, claim 39 will be objected to under 37 CFR § 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### ***35 U.S.C. 112, Sixth Paragraph***

11. The following is a quotation of the sixth paragraph of 35 U.S.C. § 112:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

12. As stated in MPEP § 2181 I.:

A claim limitation will be interpreted to invoke 35 U.S.C. § 112, sixth paragraph, **if it meets the following 3-prong analysis:**

- (A) the claim limitations must use the phrase “means for” or “step for”;
- (B) the “means for” or “step for” must be modified by functional language; and
- (C) the phrase “means for” or “step for” must not be modified by sufficient structure, material or acts for achieving the specified function. (emphasis added)

13. **Accordingly**, the following claim limitations have **not** been interpreted to invoke

35 U.S.C. § 112, sixth paragraph, in this application, since they do **not** appear to meet the third prong of the above analysis:

- a. “first furnace means **defining a desorption chamber** in which a bed of said soil may be treated to separate the hydrocarbon contaminants from the soil by thermal desorption” (emphasis added) in claim 9;
- b. “second furnace means for combusting hydrocarbon contaminants **by thermal oxidation**” (emphasis added) in claim 9, as well as claims 11, 17 and 18;
- c. “means for conveying combustion air **to said desorption chamber and to said second furnace means, and for conveying the desorbed contaminants from the absorption chamber to the second furnace means**” (emphasis added) in claim 9;
- d. “heat exchange means **arranged for preheating said combustion air and said desorbed contaminants by heat exchange with offgases from the second furnace means**” (emphasis added) in claim 9, as well as claims 10-16;
- e. “means for controlled admission of air **into said desorption chamber** above said bed **to effect in the said chamber at least partial combustion of said desorbed contaminants in gaseous form**” (emphasis added) in claim 18; and
- f. “means for conveying the products of said at least partial combustion **to said second furnace means for further combustion therein**” (emphasis added) in claim 18.



In particular, these six “means plus function” phrases, **as used in the above-noted claims, are** considered to “be modified by sufficient structure, material or acts for achieving the specified function” (see again MPEP § 2181 I.)—namely, those portions of these phrases highlighted above. **Therefore, if applicant disagrees with this conclusion, then it is respectfully requested that, in reply to this Office action, applicant make clear on the record that the above claim limitations are intended to invoke 35 U.S.C. § 112, sixth paragraph, explaining how each “means plus function” phrase, in light of the apparent structure recited therewith, may instead be interpreted “to cover the corresponding structure, material, or acts described in the specification and equivalents thereof”.**

***Claim Rejections - 35 U.S.C. § 112***

14. The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

15. Claims 9-18 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Said claims are considered vague, indefinite, and/or confusing, due to the following antecedent basis problems: 1) In independent claim 9 (upon which claims 10-18 ultimately depend), there is insufficient antecedent basis for “the absorption chamber”, as recited at line 3 of the third subsection thereof. Evidently, “absorption” should be replaced with “desorption”, and **such replacement has been presumed for the remainder of this action.** 2) In claim 16, there is insufficient antecedent basis for “the heat exchanger” (i.e., a **specific** “heat exchange means”) in

claims 9 and/or 15 (upon which claim 16 depends) and/or in claim 16 itself. 3) In claim 17, "said second furnace for thermal oxidation" is at least somewhat broader than the "second furnace **means**... [which uses] thermal oxidation" (emphasis added) recited in claim 9 (upon which claim 17 depends). Evidently, "means" should be inserted after "furnace" at line 2 of claim 17, and **such insertion has been presumed for the remainder of this action**. Appropriate correction of all aspects of this rejection is required.

16. Claim 15 is further rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Said claim is considered further vague, indefinite, and/or confusing, because it depends upon "any one of claim 9" (evidently a typographical error in the preliminary amendment). Appropriate correction is required.

#### ***Claim Rejections - 35 U.S.C. § 102***

17. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

18. Claims 9, 14 and 15 are rejected under 35 U.S.C. § 102(b) as being anticipated by Fritz et al. (US 3,918,373). In Figure 1, Fritz et al. teach a solid waste disposal system considered to meet all material limitations of applicant's independent **apparatus** claim 9, as broadly recited therein. In particular, "vertical gasification chamber 1" reads on the instant "first furnace means defining a desorption chamber"; "secondary

combustion chamber 8” reads on the instant “second furnace means... by thermal oxidation”; “conduit 4”, **in concert with** “conduit 5”, read on the instant “means for conveying combustion air to said desorption chamber and to said second furnace means, and for conveying the desorbed contaminants from the absorption chamber to the second furnace means” (noting that Fritz et al. **explicitly** teach that “[t]he gases passing through conduit 5 have particulate material entrained therein” (thus reading on applicant’s “desorbed contaminants”) (see col. 1, lines 53-54)); and “regenerative towers 24” read on the instant “heat exchange means arranged for preheating said combustion air and said desorbed contaminants by heat exchange with offgases from the second furnace means” (noting that preheated air for combustion from these towers is fed back to “conduit 4”—and hence “conduit 5”—via “conduits 32 and 33” (see col. 2, lines 28-30)). Fritz et al. further teach:

The inlets to the towers 24 are controlled by valves 35 and 36 on the waste gas side, and by valves 37 and 38 on the cold air inlet side. The heated air outlets are controlled by valves 39 and 40 while the spent waste gas outlets are controlled by valves 41 and 42. (col. 2, lines 31-35)

Note that the above teaching of Fritz et al. reads on the “energy dump valve...” limitations of instant claim 14, as broadly recited therein, and may **also** be considered to read on the “hot gas by-pass duct and damper system...” limitations of instant claim 15, as broadly recited therein. **Accordingly**, Fritz et al. anticipate instant claims 9, 14 and 15, since an apparatus meeting all required limitations appears to be **clearly** disclosed in Figure 1. With respect to the various materials recited as being used in these **apparatus** claims (i.e., “for remediating soil contaminated with hydrocarbon”, per applicant’s independent claim 9), it is respectfully submitted that such need not be

afforded any patentable weight in these, again, **apparatus** claims. That is:

“Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim.” *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969). Furthermore, “[i]nclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims.” *In re Young*, 75 F.2d 996, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). (MPEP § 2115)

### ***Claim Rejections - 35 U.S.C. § 103***

19. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 1-18, 28 and 39 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Brashears et al. (US 5,164,158, hereinafter “Brashears et al. ‘158”) in view of EP 0 155 022 (hereinafter “EP ‘022”). Initially, it is noted that this rejection is substantially similar to that set forth in the corresponding International Preliminary Examination Report (IPER) for claims 1-18 of PCT/US99/00785 (i.e., as set forth in “Box V.2.” of IPER). Thus, as stated therein, Brashears et al. ‘158 “discloses a soil remediation unit wherein the clean exhaust gas of the thermal oxidiser is passed through a heat exchanger to heat the gaseous desorbed contaminants before entering the thermal oxidiser” (see Brashears et al. ‘158 claim 1, noting especially the fifth and sixth steps, as well as Brashears et al. ‘158 Fig. 1), used “for treating contaminated soils, particularly those containing hydrocarbon products and hydrocarbon chemicals” (see col. 1, lines 7-10). Note that Brashears et al. ‘158 Figure 1 shows not only the

thermal oxidiser (i.e., component 52), but also a “dryer roaster 22”, reading on the instant claim 1 “treated desorption chamber” (see especially col. 5, lines 23-47). **Thus**, Brashears et al. ‘158 teaches processes “for remediating soil contaminated with hydrocarbons, ... wherein... desorbed contaminants prior to admission to said thermal oxidiser, are preheated by heat exchange with offgases from the thermal oxidiser”, as recited in applicant’s independent process claim 1, **as well as** apparatuses comprising the first, second and third “means” broadly recited in applicant’s independent apparatus claim 9, plus a **general** “heat exchange means”, per instant claim 9—one which is, in fact, “arranged for preheating... said desorbed contaminants by heat exchange with offgases from the second furnace means [(i.e., the thermal oxidiser)]”, as recited in instant claim 9. Brashears et al. ‘158 fails, however, to teach that the “combustion air for said desorption chamber and said thermal oxidiser... are preheated by heat exchange with offgases from the thermal oxidiser”, **as also** recited in instant claim 1, **and hence** that the “heat exchange means [is] arranged for preheating said combustion air... by heat exchange with offgases from the second furnace means [(i.e., the thermal oxidiser)]”, **as also** recited in instant claim 9. **Therefore**, Brashears et al. ‘158 fails to teach the additional method steps of instant claims 2-8 and the additional apparatus limitations of instant claims 10-18. **However**, Brashears et al. ‘158 **does** teach that “the offgas from thermal oxidation is further treated by one or more modular off-gas treatments”, as recited in both instant claims 28 and 39—namely, “stack 62” in Figure 1 (see, for example, corresponding description of Fig. 1 at col. 6, lines 33-38).

21. As stated in the corresponding IPER for claims 1-18 of PCT/US99/00785 (i.e., as

set forth in "Box V.2." of IPER), EP '022 "discloses a soil remediation system wherein the contaminants have been desorbed and combusted and the combustion gases are used in heat exchange relationship to preheat the combustion air. See claim 1 line 7."

As **further** stated therein:

The problem that... applicant is attempting to solve is to provide a soil remediation system wherein energy usage is optimised (page 4 lines 12-18). This is the same problem... [discussed in Brashears et al. '158] (see column 1 lines 45-50) and... [EP '022] (see page 2 lines 10-18). It is considered that a person skilled in the art searching for a solution to this problem would have found both... [these references]... and considered them relevant to the problem. It is considered to be obvious to combine the teachings of... [these references] in order to develop a system wherein the hot exhaust gases are used to preheat **both** the incoming air **and** the gaseous desorbed contaminants. ("Box. V.2." of IPER, emphasis added)

**In other words**, absent contrary evidence, it is considered to have been obvious for one of ordinary skill in the art, at the time of applicant's invention, to have modified the soil remediation unit taught by Brashears et al. '158—again, wherein desorbed contaminants are preheated by heat exchange with offgases from the thermal oxidiser, prior to admission to the thermal oxidiser—so that these offgases **also** preheat the combustion air, as taught by EP '022, because, as just discussed, EP '022 is directed towards not only the same type of process and apparatus as Brashears et al. '158 (i.e., remediation of soil containing hydrocarbons (noting p. 7, lines 21-22, of EP '022)), but **also** one of the same problems (i.e., optimization of energy usage/thermal efficiency). When having done so, it is considered to have been **further** obvious for one of ordinary skill in the art, at the time of applicant's invention, to have determined with minimum testing correspondingly suitable method steps, per instant claims 2-8, as well as correspondingly effective apparatus limitations, per instant claims 10-18, because,

absent contrary evidence, such determination is considered to have been within the realm of routine process optimization. Note that the corresponding IPER for claims 1-18 of PCT/US99/00785 states, "The features added by claims 2-8 and 10-18 are features which cannot be considered to involve an inventive step" (see "Box. V.2." of IPER). More specifically, absent contrary evidence, it is considered to have been *prima facie* obvious for the artisan to have determined with minimum testing: in what order to preheat the combustion air and desorbed contaminants, per instant claims 2 and 10; how much (if any) excess preheated air need be vented during treatment of soil with high hydrocarbon contamination levels, per instant claim 3; optimal heat exchanger design specifications (heat exchangers in general being clearly taught by Brashears et al. '158 and EP '022), per instant claims 4-6 and 11-16 (noting that Brashears et al. '158 teaches co-current flow in same, per instant claims 5 and 12); how many combustion stages/what temperature ranges to use in the thermal oxidiser, per instant claims 7 and 17; and, lastly, how to optimize at least partial combustion of the desorbed contaminants within the thermal oxidiser, if so desired, per instant claims 8 and 18.

### **Conclusion**


22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. These references are considered cumulative to or less material than those discussed above. See especially column 3, lines 23-31, and column 6, lines 52-60, of the Brashears et al. patent cited on the enclosed PTO-892 (US 5,170,726). The Tischler patents (US 5,4145,205; US 5,625,119; US 5,744,691) have been cited for their disclosure of a five-stage oxidizer (see, for example, component 20 in Fig. 1 of the


'691 patent). The Keating, II et al. patent (US 4,815,398) is discussed in the corresponding International Search Report, as is the WO equivalent of Robertson (US 5,655,465) (see "Box II" of Form PCT/ISA/210 (extra sheet) for PCT/AU99/00785). The cited EPO Search Report—citing "No further relevant documents"—evidently corresponds to an EP equivalent of the instant application (i.e., EP 99 96 9689).

23. Any inquiry concerning this communication or any earlier communications from the examiner should be directed to Ardith E. Hertzog at telephone number (571) 272-1347. The examiner can normally be reached on Monday through Friday (from about 8:00 a.m. - 4:00 p.m.).

24. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman, can be reached at (571) 272-1358. The fax phone number for the organization where this application is assigned is 703-872-9306.

25. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. For any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
AEH  
October 16, 2004

  
STANLEY S. SILVERMAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700